

1988

1 January 1985
New Orleans District

DATA FOR TESTIFYING OFFICERS ON FY 1986 CIVIL WORKS BUDGET
LAKE PONTCHARTRAIN, LOUISIANA, AND VICINITY

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REFERENCE TO THE PREVIOUSLY STATED THAT INTERAGENCY COORDINATION
IS TO BE MAINTAINED THROUGH THE SUPPORT OF THE ARMY

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DATA FOR TESTIFYING OFFICERS ON FY 1986 CIVIL WORKS BUDGET

LAKE PONTCHARTRAIN, LOUISIANA, AND VICINITY

BENEFIT-COST RATIO:

a. Comparison of Remaining B/C Ratios. - The remaining B/C ratio is 6.7 to 1, a decrease of 9.8 from that last presented to Congress (16.5 to 1). This change is due to the incorporation of the methodology contained in the Reevaluation Study "Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection Project, dated December 1982." This reanalysis extended to a complete revision of fundamental base data and consideration of many changes both in the study area and in agency regulations which became applicable subsequent to publication of the project document. Remaining B/C ratios are based on comparison of the benefits remaining to be realized by completing construction of the project and the cost remaining as of the budget year.

b. Annual Benefits: The following tabulation is provided for the purpose of comparing the Benefits presented in the justification paragraph of the Justification Sheet.

<u>Annual Benefits</u>	<u>TOTAL BENEFITS</u>		
	<u>Last Est. Submitted to Congress</u> <u>1/</u>	<u>Current Estimate at Project Interest Rate</u> <u>2/</u>	<u>Change From Last</u>
	<u>(\$)</u>	<u>(\$)</u>	<u>(+ or - \$)</u>
Flood Control	\$351,780,000	\$204,677,000	\$-147,103,000
Inundation Reduction <u>3/</u>	(336,688,000)	(204,677,000)	(-132,011,000) <u>4/</u>
Intensification	(15,092,000)		(-15,092,000) <u>5/</u>
Area Redevelopment	4,451,000		-4,451,000 <u>6/</u>
Total Annual Benefits	356,231,000	204,677,000	-151,554,000
Interest Rate Used	3-1/8%	3-1/8%	

1/ Barrier Plan.

2/ High Level Plan from Reevaluation Study.

3/ Essentially complete protection will be provided to 105,190 acres, comprised of 61,900 acres of urban type development, 43,290 acres of undeveloped land which would be impacted by a project hurricane. The current value of all lands is \$7,503,000,000 and of improvements is \$14,155,000,000. 1980 population: 858,000.

LAKE PONTCHARTRAIN, LA, AND VICINITY

BENEFIT-COST RATIO: (Cont'd)

4/ Change resulted from revision of the following variables:

- a. The Barrier Plan data reflects the authorized but deferred St. Charles Parish lakefront protection levee alignment. This protection generated substantial benefits based on enhancement of wetlands between U. S. Highway 61 and Lake Pontchartrain. This alignment is not a recommended feature of the reevaluation report plan, nor are benefits and costs for such protection included. Only inundation reduction and emergency benefits on existing and minor future development south of Highway 61 or immediately adjacent to the highway to the north are included in the reevaluation report data.
- b. In the reevaluation report, future development was assumed to occur at floor elevations consistent with FIA requirements. The previous analysis was based on floor elevations of 1.5 feet above nominal ground elevations, which is generally much lower. This also impacts a portion of the benefits categorized as "existing benefits" in the reevaluation report, which are related to structures which developed per FIA regulations subsequent to the previous study.
- c. Growth rates (OBERS-based) on remaining undeveloped acreages are lower in the reevaluation report.
- d. Business losses claimed in the previous studies were not calculated for the reevaluation report due to the extreme complexity involved, and lack of consensus over acceptable methods of netting out the NED impacts from the regional n report.
- d. Business losses claimed in the previous studies were not calculated for the reevaluation report due to the extreme complexity involved, and lack of consensus over acceptable methods of netting out the NED impacts from the regional effects.
- e. No losses to vehicles were analyzed in the reevaluation report.
- f. Benefits to areas on the north shore of Lake Pontchartrain were, of course, also subject to various of the above factors. In addition, the recommended plan contained in the reevaluation report, i.e., the High Level Plan, provides no protection for the north shore and, therefore, no benefits to that area are claimed.
- g. Residential and non-residential depth of flooding-damage relationships have been revised in accordance with actual field surveys conducted for the reevaluation study. This is also true for the value of contents-value of structure relationship.
- h. Revised stage-frequency curves were used for the reevaluation report.
- i. The reevaluation report is based on completely revised contour maps of the study area.
- j. Structure and contents values used in the reevaluation report analysis are actual appraised values (1980) based on sample surveys as opposed to the indexed values used for the Barrier Plan submission.

5/ The Barrier budget data included substantial intensification and location benefits on large numbers of acres which were deemed undevelopable, or developable only at low intensity without the project. Many of these acreages have developed subsequently, however, without apparent regard to flood proneness; thus, only inundation reduction benefits have been claimed in the reevaluation report.

6/ Employment benefits (Area Redevelopment Benefits) were not included in the reevaluation report because the study area no longer qualifies under Department of Commerce criteria as suffering from "substantial and persistent unemployment."

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BENEFIT-COST RATIO: (Cont'd)

Annual Benefits	Benefits & Costs When		Remaining Benefits/Cost		
	1st Funded for Construction		Last Presented to Congress	Current Estimate	
	In FY 1967	1/		At Project Interest Rate	Change From Last
	(\$)		3/	4/	(+ or - \$)
Flood Control			(\$)	(\$)	
Inundation Reduction 2/	\$51,389,400		\$232,210,000	\$104,248,000	-127,962,000 5/ 6/
Intensification 3/	344,000		12,798,000		-12,798,000 7/
Area Redevelopment	--		3,043,000		-3,043,000 8/
Total Annual Benefits	\$51,733,400		\$248,051,000	\$104,248,000	
Total Annual Costs	\$2,945,500		\$ 15,019,000	\$ 15,446,000	+427,000 9/ 10/
B/C Ratio	17.6		16.5	6.7	-9.8 9/
Interest Rate Used	3-1/8%		3-1/8%	3-1/8%	

1/ Based on cost estimate effective 1 July 1975.

2/ Essentially complete protection will be provided to 105,190 acres comprised of 61,900 acres of urban-type development and 43,290 acres of undeveloped land which would be impacted by a project hurricane. The current value of all lands is \$7,503,000,000; current value of all improvements is \$14,155,000,000. 1980 population was 858,000.

3/ Barrier Plan.

4/ High Level Plan from the Reevaluation Study (with additional protection added since 1979).

5/ Agricultural benefits claimed in prior data were not analyzed or claimed in the reevaluation report due to the relative unimportance of this category.

6/ Change resulted from revision of the following variables:

a. The Barrier Plan data reflects the authorized but deferred St. Charles Parish lakefront protection levee alignment. This protection generated substantial benefits based on enhancement of wetlands between U. S. Highway 61 and Lake Pontchartrain. This alignment is not a recommended feature of the reevaluation report plan, nor are benefits and costs for such protection included. Only inundation reduction and emergency benefits on existing and minor future development south of Highway 61 or immediately adjacent to the highway to the north are included in the reevaluation report data.

b. In the reevaluation report, future development was assumed to occur at floor elevations consistent with FIA requirements. The previous analysis was based on floor elevations of 1.5 feet above nominal ground elevations, which is generally much lower. This also impacts a portion of the benefits categorized as "existing benefits" in the reevaluation report, which are related to structures which developed per FIA regulations subsequent to the previous study.

c. Growth rates (OBERS-based) on remaining undeveloped acreages are lower in the reevaluation report.

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BENEFIT-COST RATIO: (Cont'd)

- d. A portion of the benefits included in previous documents were discounted as "future benefits" while in the reevaluation report the passage of time has resulted in some of these benefits becoming "present benefits," i.e., undiscounted benefits.
- e. Barrier Plan remaining benefits were proportioned based on costs remaining. This tended to overstate remaining benefits, as remaining costs were inflated compared to sunk costs.
- f. Business losses claimed in the previous studies were not calculated for the reevaluation report due to the extreme complexity involved and lack of consensus over acceptable methods of netting out the NED impacts from the regional effects.
- g. No losses to vehicles were analyzed in the reevaluation report.
- h. Benefits to areas on the north shore of Lake Pontchartrain were, of course, also subject to various of the above factors. In addition, the recommended plan contained in the reevaluation report, i.e., the High Level Plan, provides no protection for the north shore and, therefore, no benefits to that area are claimed.
- i. Residential and non-residential depth of flooding-damage relationships have been revised in accordance with actual field surveys conducted for the reevaluation study. This is also true for the value of contents-value of structure relationship.
- j. Revised stage-frequency curves were used for the reevaluation report.
- k. The reevaluation report is based on completely revised contour maps of the study area.
- l. Structure and contents values used in the reevaluation report analysis are actual appraised values (1980) based on sample surveys as opposed to the indexed values used for the Barrier Plan.
- 7/ The Barrier budget data included substantial intensification and location benefits on large numbers of acres which were deemed undevelopable or developable only at low intensity without the project. Many of these acreages have developed subsequently, however, without apparent regard to flood proneness; thus, only inundation reduction benefits have been claimed in the reevaluation report.
- 8/ Employment benefits (Area Redevelopment Benefits) were not included in the reevaluation report because the study area no longer qualifies under Department of Commerce criteria as suffering from "substantial and persistent unemployment."
- 9/ Change due to the incorporation of the methodology contained in the Reevaluation Study, "Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project, dated December 1982." This reanalysis extended to a complete revision of fundamental base data and consideration of many changes both in the study area and in agency regulations which became applicable subsequent to publication of the project document.
- 10/ Change due to the deletion of the navigation portion of the project, thereby eliminating the amount subject to the 50-year amortization factor (.00854).

ALLOCATION AND APPORTIONMENT OF FIRST COSTS:

Purpose	Allocation of First Costs		Percent of Current Total
	Based on Last Estimate Presented to Congress	Current	
Flood Control	\$563,870,000	\$820,000,000	100
Navigation (Seabrook Lock)	34,130,000	0 1/	0 1/
TOTAL	\$598,000,000	\$820,000,000	100

1/ See YDFO page 5 (Change in Scope since authorization)

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LOCATION AND APPORTIONMENT OF FIRST COSTS: (Cont'd)

Purpose	Apportionment of First Cost Based on Estimate Last Presented to Congress		Based on Current Estimate			
	Federal	Non-Federal	Costs		Percent of Total	
			Federal	Non-Federal	Federal	Non-Federal
Flood Control	\$366,870,000	\$197,000,000	\$574,000,000	\$246,000,000	70	30
Navigation (Seabrook Lock)	34,130,000	0	0 1/	0	- 1/	- 1/
TOTAL	\$401,000,000	\$197,000,000	\$574,000,000	\$246,000,000	70	30

1/ See YDT0 page 5 (Change in Scope since authorization)

The apportionment of cost is based on the cost sharing formula as outlined in House Document No. 231, 89th Congress, and authorized by Flood Control Act of 1965. H.D. No. 231 specifies that local interests contribute in cash or equivalent work not less than 30 percent of the total project cost, said 30 percent to include the fair market value of lands, damages, and alterations (relocations) for the construction of the project.

Apportionment of First Costs			
Last Estimate to Congress:		Current	Estimate
Federal	Non-Federal	Federal	Non-Federal
\$401,000,000	\$197,000,000	\$574,000,000	\$246,000,000

Details of Apportionment		Apportionment	
Project Costs to be Apportioned		Federal	Non-Federal
To be apportioned on 70/30 basis:			
70% of Project Costs:		\$574,000,000	
30% of Project Costs:			\$245,770,000
Cost of Realignment at Florida Avenue			
Container Plant	230,000		230,000 1/
Total Project Cost (Ultimate)	\$820,000,000	\$574,000,000 2/	\$246,000,000 3/
Reimbursement		+45,000,000	-45,000,000
Total Current Estimate (Allocations)		\$619,000,000	\$201,000,000

1/ See YDT0 - 10, Local Cooperation, paragraphs (a)(4).

2/ Excludes \$45,000,000 which local interests are required to reimburse the Federal Government for costs allocated due to the Water Resources Development Act of 1974. Section 92 specifies that local interests may agree to pay the unpaid balance of their required cash payment, due in annual installments, in accordance with a specific formula.

3/ Includes \$45,000,000 which local interests are required to reimburse the Federal Government for costs allocated due to the Water Resources Development Act of 1974. Section 92 specifies that local interests may agree to pay the unpaid balance of their required cash payment, due in annual installments, in accordance with a specific formula.

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DATA:

a. Comparison of Federal Cost Estimate: The current Federal cost estimate of \$619,000,000 is an increase of \$162,000,000 over the latest estimate (\$457,000,000) submitted to Congress. This change includes increases of \$83,020,000 for adjustments in the estimated inflation allowance through the construction period, \$62,000 for contract modifications, \$260,000 due to new item of work, and \$299,958,000 for the High Level Plan of Protection; which includes \$243,431,000 for construction, \$33,205,000 for Engineering and Design, and \$23,322,000 for Supervision and Administration. These increases are offset by decreases of \$193,453,000 associated with the Barrier Plan of Protection, \$3,112,000 for actual cost of completed work, \$735,000 due to contract awards, and \$24,000,000 due to reanalysis of Federal cost-sharing requirements.

b. Comparison of Non-Federal Cost Estimate: The current non-Federal cost estimate of \$201,000,000 is an increase of \$60,000,000 over the latest estimate (\$141,000,000) submitted to Congress. This change includes increases of \$27,657,000 for adjustments in the estimated inflation allowance through the construction period, \$6,000 for contract modifications, \$30,000 due to a new item of work, \$58,832,000 for the High Level Plan of Protection; which includes \$29,458,000 for Lands and Damages, \$8,384,000 for Relocation, \$11,628,000 for Construction, \$5,379,000 for Engineering and Design, and \$3,983,000 for Supervision and Administration, and an increase of \$23,001,000 due to reanalysis of non-Federal cost-sharing requirements. These increases were partially offset by decreases of \$49,062,000 associated with the Barrier Plan of Protection, \$81,000 for actual cost of completed work, and \$383,000 due to contract awards.

c. Comparison of Preconstruction Cost Estimate. - Not applicable.

d. Comparison of Project Cost Estimate. -

Feature	Latest Estimate to Congress FY 1985 Budget	Current Estimate	Change from Latest to Congress		
			Total	Price Level	Other 1/
BARRIER UNIT					
Lands & Damages	\$ 3,779,000	\$ 735,000	\$ -3,044,000		\$ -3,044,000
Relocations	227,000	0	-227,000	-	-227,000
Locks	73,850,000	0	-73,850,000	-8,640,000	-65,210,000
Roads, Railroads & Bridges	245,000	0	-245,000	-	-245,000
Channels & Canals	7,420,000	765,000	-6,655,000	-	-6,655,000
Breakwaters & Seawalls	5,850,000	0	-5,850,000	-1,170,000	-4,680,000
Levees & Floodwalls	58,820,000	1,898,000	-56,922,000	-	-56,922,000
Flood Control & Diversion Structure	98,179,000	0	-98,179,000	-2,073,000	-96,106,000
* Permanent Operating Equip.	13,000	4,000	-9,000	-	-9,000
Engineering & Design	14,270,000	14,343,000 2/	+73,000	-	+73,000
Supervision & Administration	10,875,000	872,000	-10,003,000	-530,000	-9,473,000
Subtotal - BARRIER UNIT	\$273,528,000	\$18,617,000	\$-254,911,000	-12,413,000	\$-242,498,000

1/ Reanalysis of requirements for the High Level Plan of Protection. (See WDT0 Page 15 Additional Information paragraph (d)(2). E&D Increase for the completion of FY 84 Barrier requirements.

FINANCIAL DATA: (Cont'd)

Feature	Latest Estimate to Congress FY 1985 Budget	Current Estimate	Change from Latest to Congress		
			Total	Price Level	Other
NEW ORLEANS EAST UNIT					
Lands & Damages	\$ 12,411,000	\$ 48,291,000	\$ +35,880,000	\$ +7,313,000	\$ +28,567,000 1/
Relocations	11,953,000	22,904,000	+10,951,000	+1,738,000	+9,213,000 1/
Levees & Floodwalls	95,477,000	275,089,000	+181,612,000	+37,784,000	+143,828,000 2/
Pumping Plants	19,484,000	18,790,000	-694,000	-301,000	-393,000 3/
Engineering & Design	15,043,000	40,346,000 4/	+25,303,000	+3,803,000	+21,500,000 1/
Supervision & Administration	6,997,000	24,622,000	+17,625,000	+4,818,000	+12,807,000 5/
Subtotal-NEW ORLEANS EAST UNIT	\$159,365,000	\$430,042,000	\$+270,677,000	\$+55,155,000	\$+215,522,000

1/ Reanalysis of requirements for the High Level Plan of Protection.

2/ Includes +\$107,000 based on contract awards; -\$447,000 actual cost of completed work; +\$143,848,000 required for High Level Plan of Protection, and +\$320,000 for survey and layout requirements.

3/ Based on contract award.

4/ Includes \$13,000 for U. S. Fish and Wildlife Service.

5/ Includes +\$13,127,000 for High Level Plan of Protection and -\$320,000 for survey and layout included in the levee and floodwall feature.

NEW ORLEANS WEST UNIT					
Lands & Damages	\$ 1,140,000	\$ 2,330,000	\$ +1,190,000	\$ +299,000	\$ +891,000 1/
Relocations	1,345,000	790,000	-555,000	+274,000	-829,000 1/
Levees & Floodwalls	50,015,000	218,869,000	+168,854,000	+54,628,000	+114,226,000 1/
Engineering & Design	3,392,000	25,327,000	+21,935,000	+4,851,000	+17,084,000 1/
Supervision & Administration	1,871,000	21,019,000	+19,148,000	+4,650,000	+14,498,000 1/
Subtotal-NEW ORLEANS WEST UNIT	\$57,763,000	\$268,335,000	\$+210,572,000	\$+64,702,000	\$+145,870,000

1/ Reanalysis of requirements for the High Level Plan of Protection.

MANDEVILLE UNIT					
Levees & Floodwalls	\$ 965,000	\$ 2,200,000	\$ +1,235,000	\$ +171,000	\$ +1,064,000 1/
Engineering & Design	230,000	270,000	+40,000	+27,000	+13,000 1/
Supervision & Administration	70,000	220,000	+150,000	+24,000	+126,000 1/
Subtotal-MANDEVILLE UNIT	\$ 1,265,000	\$ 2,690,000	\$ +1,425,000	\$ +222,000	\$ +1,203,000 1/

1/ Reanalysis of requirements for the High Level Plan of Protection.

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FINANCIAL DATA:

a. Comparison of Federal Cost Estimate: The current Federal cost estimate of \$619,000,000 is an increase of \$162,000,000 over the latest estimate (\$457,000,000) submitted to Congress. This change includes increases of \$83,020,000 for adjustments in the estimated inflation allowance through the construction period, \$62,000 for contract modifications, \$260,000 due to new item of work, and \$299,958,000 for the High Level Plan of Protection; which includes \$243,431,000 for construction, \$33,205,000 for Engineering and Design, and \$23,322,000 for Supervision and Administration. These increases are offset by decreases of \$193,453,000 associated with the Barrier Plan of Protection, \$3,112,000 for actual cost of completed work, \$735,000 due to contract awards, and \$24,000,000 due to reanalysis of Federal cost-sharing requirements.

b. Comparison of Non-Federal Cost Estimate: The current non-Federal cost estimate of \$201,000,000 is an increase of \$60,000,000 over the latest estimate (\$141,000,000) submitted to Congress. This change includes increases of \$27,657,000 for adjustments in the estimated inflation allowance through the construction period, \$6,000 for contract modifications, \$30,000 due to a new item of work, \$58,832,000 for the High Level Plan of Protection; which includes \$29,458,000 for Lands and Damages, \$8,384,000 for Relocations, \$11,628,000 for Construction, \$5,379,000 for Engineering and Design, and \$3,983,000 for Supervision and Administration, and an increase of \$23,001,000 due to reanalysis of non-Federal cost-sharing requirements. These increases were partially offset by decreases of \$49,062,000 associated with the Barrier Plan of Protection, \$81,000 for actual cost of completed work, and \$383,000 due to contract awards.

c. Comparison of Preconstruction Cost Estimate. - Not applicable.

d. Comparison of Project Cost Estimate. -

<u>Feature</u>	<u>Latest Estimate to Congress FY 1985 Budget</u>	<u>Current Estimate</u>	<u>Change from Latest to Congress</u>		
			<u>Total</u>	<u>Price Level</u>	<u>Other 1/</u>
<u>BARRIER UNIT</u>					
Lands & Damages	\$ 3,779,000	\$ 735,000	\$ -3,044,000		\$ -3,044,000
Relocations	227,000	0	-227,000	-	-227,000
Locks	73,850,000	0	-73,850,000	-8,640,000	-65,210,000
Roads, Railroads & Bridges	245,000	0	-245,000	-	-245,000
Channels & Canals	7,420,000	765,000	-6,655,000	-	-6,655,000
Breakwaters & Seawalls	5,850,000	0	-5,850,000	-1,170,000	-4,680,000
Levees & Floodwalls	58,820,000	1,898,000	-56,922,000	-	-56,922,000
Flood Control & Diversion Structure	98,179,000	0	-98,179,000	-2,073,000	-96,106,000 1/
* Permanent Operating Equip.	13,000	4,000	-9,000	-	-9,000
Engineering & Design	14,270,000	14,343,000 2/	+73,000	-	+73,000
Supervision & Administration	10,875,000	872,000	-10,003,000	-530,000	-9,473,000
Subtotal - BARRIER UNIT	\$273,528,000	\$18,617,000	\$-254,911,000	-12,413,000	\$-242,498,000

1/ Reanalysis of requirements for the High Level Plan of Protection. (See WDO Page 15 Additional Information paragraph (d)(2). E&D Increase for the completion of FY 84 Barrier requirements.

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FINANCIAL DATA: (Cont'd)

Feature	Latest Estimate to Congress FY 1985 Budget	Current Estimate	Change from Latest to Congress		
			Total	Price Level	Other
NEW ORLEANS EAST UNIT					
Lands & Damages	\$ 12,411,000	\$ 48,291,000	\$ +35,880,000	\$ +7,313,000	\$ +28,567,000 1/
Relocations	11,953,000	22,904,000	+10,951,000	+1,738,000	+9,213,000 1/
Levees & Floodwalls	95,477,000	275,089,000	+181,612,000	+37,784,000	+143,828,000 2/
Pumping Plants	19,484,000	18,790,000	-694,000	-301,000	-393,000 3/
Engineering & Design	15,043,000	40,346,000 4/	+25,303,000	+3,803,000	+21,500,000 1/
Supervision & Administration	6,997,000	24,622,000	+17,625,000	+4,818,000	+12,807,000 5/
Subtotal-NEW ORLEANS EAST UNIT	\$159,365,000	\$430,042,000	\$+270,677,000	\$+55,155,000	\$+215,522,000

1/ Reanalysis of requirements for the High Level Plan of Protection.

2/ Includes +\$107,000 based on contract awards; -\$447,000 actual cost of completed work; +\$143,848,000 required for High Level Plan of Protection, and +\$320,000 for survey and layout requirements.

3/ Based on contract award.

4/ Includes \$13,000 for U. S. Fish and Wildlife Service.

5/ Includes +\$13,127,000 for High Level Plan of Protection and -\$320,000 for survey and layout Included in the levee and floodwall feature.

NEW ORLEANS WEST UNIT					
Lands & Damages	\$ 1,140,000	\$ 2,330,000	\$ +1,190,000	\$ +299,000	\$ +891,000 1/
Relocations	1,345,000	790,000	-555,000	+274,000	-829,000 1/
Levees & Floodwalls	50,015,000	218,869,000	+168,854,000	+54,628,000	+114,226,000 1/
Engineering & Design	3,392,000	25,327,000	+21,935,000	+4,851,000	+17,084,000 1/
Supervision & Administration	1,871,000	21,019,000	+19,148,000	+4,650,000	+14,498,000 1/
Subtotal-NEW ORLEANS WEST UNIT	\$57,763,000	\$268,335,000	\$+210,572,000	\$+64,702,000	\$+145,870,000

1/ Reanalysis of requirements for the High Level Plan of Protection.

MANDEVILLE UNIT					
Levees & Floodwalls	\$ 965,000	\$ 2,200,000	\$ +1,235,000	\$ +171,000	\$ +1,064,000 1/
Engineering & Design	230,000	270,000	+40,000	+27,000	+13,000 1/
Supervision & Administration	70,000	220,000	+150,000	+24,000	+126,000 1/
Subtotal-MANDEVILLE UNIT	\$ 1,265,000	\$ 2,690,000	\$ +1,425,000	\$ +222,000	\$ +1,203,000 1/

1/ Reanalysis of requirements for the High Level Plan of Protection.

1 January 1985
New Orleans District

FINANCIAL DATA: (Cont'd)

CHALMETTE UNIT

Lands & Damages	\$ 7,213,000	\$ 7,216,000	\$ +3,000	\$ -	\$ +3,000 <u>1/</u>
Relocations	3,896,000	3,874,000	-22,000	-22,000	
Levees & Floodwalls	80,745,000	75,301,000	-5,444,000	+3,384,000	-8,828,000 <u>3/</u>
Permanent Operating Equip.	21,000	21,000	0	-	-
Engineering & Design	8,192,000	7,491,000 <u>4/</u>	-701,000	-961,000	+260,000 <u>2/</u>
Supervision & Administration	6,012,000	6,413,000	+401,000	+610,000	-209,000 <u>5/</u>
Subtotal-CHALMETTE UNIT	\$106,079,000	\$100,316,000	\$ -5,763,000	\$ 3,011,000	\$ -8,774,000

1/ Based on actual land acquisition.

2/ Based on reanalysis of requirements.

3/ Includes \$12,000 actual cost of completed work; +\$290,000 new item of work, Bayou Bienvenue Scour Repair; -\$804,00 actual contract awards; +\$69,000 overrun on required yardage (Station 945 to 1119); -\$8,604,000 based on a reevaluation of the remaining work, and +\$209,000 for surveys and layout requirements.

4/ Includes \$3,000 for U. S. Fish and Wildlife Service.

5/ Survey and layout cost included in the levee and floodwall feature.

<u>Feature</u>	<u>Latest Estimate to Congress FY 1985 Budget</u>	<u>Current Estimate</u>	<u>Change from Latest to Congress</u>		
			<u>Total</u>	<u>Price Level</u>	<u>Other</u>
GRAND TOTAL (Federal & Non-Federal)	\$598,000,000	\$820,000,000	\$+222,000,000	\$+110,677,000	\$+111,323,000
Total Federal Cost	457,000,000	619,000,000 <u>1/</u>	+162,000,000	+83,020,000	+78,980,000
Total Non-Federal Cost:	141,000,000	201,000,000 <u>2/</u>	+60,000,000	+27,657,000	+32,343,000
Cash Contribution	99,036,000	114,860,000	+15,824,000	+18,055,000	-2,231,000
Other	41,964,000	86,140,000 <u>3/</u>	+44,176,000	+14,064,000	+30,112,000

1/ Includes future non-Federal reimbursement of \$45,000,000; ultimate estimate of Federal cost is \$574,000,000.

2/ Excludes future non-Federal reimbursement of \$45,000,000; ultimate estimate of non-Federal cost is \$246,000,000.

3/ Includes \$58,572,000 for lands and damages and \$27,568,000 for relocations.

E&D is 14.8% of the construction cost.

S&A is 7.8% of the construction and E&D costs.

e. Contingencies. - The estimate includes \$90,617,000 for contingencies, which is 24% of the uncompleted work. The estimate last presented to Congress included \$63,351,000 for contingencies, which was 21% of the uncompleted work.

FINANCIAL DATA: (Cont'd)

f. Firmness of Federal Cost Estimate. - The current estimate is based on Design Memorandums, plans and specifications, contracts, and completed works, with costs projected through the construction period.

g. Appropriation History. -

Appropriation History

Total thru FY 1980	105,764,000 <u>1/</u>
FY 1981	8,800,000
FY 1982	13,000,000 <u>2/</u>
FY 1983	13,716,000
FY 1984	8,800,000 <u>3/</u>
FY 1985	13,800,000 <u>4/</u>
Total to date	\$163,880,000

FY 1985 Budget History

LMVD Recommendation	\$24,200,000
OCE Recommendation	17,500,000
OMB Allowance	17,500,000
House Allowance	17,500,000
Senate Allowance	17,500,000
Conference Allowance	17,500,000
Work Allowance	13,800,000 <u>4/</u>
Capability	17,500,000

FY 1986 Budget Request

\$36,000,000
25,000,000
25,000,000
25,000,000

1/ Initial construction funds received in FY 1967.

2/ Reflects an increase of \$1,000,000 from return of FY 1981 deferral.

3/ Reflects a reduction of \$1,000,000 assigned as savings and slippage, \$3,639,000 revoked and \$3,361,000 transferred from the project.

4/ Reflects a reduction of \$2,400,000 assigned as savings and slippage and \$1,300,000 transfer from the project.

h. Capability. No additional funds over the budget request of \$25,000,000 can be effectively utilized.

1 January 1985
New Orleans District

FINANCIAL DATA: (Cont'd)

I. Transfers: -

FY 1984:

<u>From</u>	<u>To</u>	<u>Month of Transfer</u>	<u>Amount</u>	<u>Reason</u>
Lake Pontchartrain	Grand Isle & Vicinity	12 Dec 83	\$2,861,000	Funds available due to delay in award of Citrus Lakefront Levee Foreshore Protection pending a decision on the Barrier/High Level Plan and are required to complete construction of the Grand Isle project.
Lake Pontchartrain	Larose to Golden Meadow	28 Dec 83	\$ 500,000	Funds available due to delay in award of Citrus Lakefront Levee Foreshore Protection and are required to award the Section B Gap Closure contract.
Lake Pontchartrain	OCE	19 Dec 83	\$ 650,000	Funds available due to delay in award of Citrus Lakefront Levee Foreshore Protection.
Lake Pontchartrain	OCE	7 Jun 84	\$2,900,000	Funds available due to earnings on contract for Station 1121 to 1568 being less than anticipated.
Lake Pontchartrain	OCE	27 Jul 84	\$ 89,000	-do-

FY 1985:

Lake Pontchartrain	Grand Isle & Vicinity	6 Dec 84	\$ 32,000	Funds available due to reanalysis of contract earnings.
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Anticipated:

Lake Pontchartrain	Miss. River - Baton Rouge to the Gulf	Jan 85	\$1,300,000	-do-
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AL DATA: (Cont'd)

J. Unobligated and Unexpended Balances. -

	<u>End of FY 1984</u>	<u>Estimated at End of FY 1985</u>
Unobligated Balance	\$ 21,400	\$0
Undelivered Orders	<u>1,540,700</u>	<u>0</u>
Unexpended Balance	\$1,562,100 <u>1/</u>	\$0

1/ Contractor earnings less than anticipated. Funds will be expended in FY 1985.

k. Comparison of Bids.

<u>Item</u>	<u>No. of Bidders</u>	<u>Low Bid</u>	<u>High Bid</u>	<u>Government Estimate</u>	<u>Last Est. to Congress</u>	<u>Current Est. to Congress</u>	<u>Current Working Estimate</u>
Bayou Bienvenue Scour Repair	6	\$ 782,000 <u>1/</u>	\$1,651,000	\$ 981,000	\$ 430,000 <u>2/</u>	\$ 272,000 <u>2/</u>	\$ 272,000
* Citrus Bk Lv Sta 176-573 (3rd Lift)	7	\$4,571,300	\$6,730,200	\$5,348,300	\$2,803,000	\$5,060,000	45,060,000

1/ Includes \$510,000 for M.R.G.O. project.

2/ Excludes portion to M.R.G.O. project.

l. Maintenance. -

Federal. None.

Non-Federal. The estimated annual non-Federal cost for maintenance is \$1,122,000 which includes \$61,000 for replacements.

* Revised 14 Jan 84

1 January 1985
New Orleans District

FINANCIAL DATA: (Cont'd)

1. Transfers: -

FY 1984:

<u>From</u>	<u>To</u>	<u>Month of Transfer</u>	<u>Amount</u>	<u>Reason</u>
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Anticipated:

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2/ Excludes portion of M.R.G.O. project.

l. Maintenance. -

Federal. None.

Non-Federal. The estimated annual non-Federal cost for maintenance is \$1,122,000 which includes \$61,000 for replacements.

1 January 1985
New Orleans District

STATUS AND SCHEDULE:

a. Scheduled Completion Dates:

<u>Feature</u>	<u>Last Presented to Congress</u>	<u>Present Schedule</u>	<u>Explanation of Change</u>
Barrier Unit	Indefinite	N/A	Not required under recommended High Level Plan of Protection.
New Orleans East Unit	Sep 1988	Dec 1993	Additional work required for High Level Plan of Protection.
New Orleans West Unit	Indefinite	Sep 2006	-do-
Entire Project	Sep 1991	Sep 2006	-do-

b. Performance - FY 85:

	<u>Last Presented to Congress</u>	<u>Present Schedule</u>	<u>Remarks</u>
<u>New Orleans East Unit</u>			
<u>Initiate:</u>			
N.O. Lakefront Levee West of I.H.N.C.		-	Under the proposed High Level Plan of Protection this item has been divided into several reaches including levees and floodwalls.
<u>Continue:</u>			
Citrus Lakefront Levee IHNC Paris Rd FSP		Initiate	Delayed at the request of local interests pending a decision on the barrier vs. high level plan.
<u>Not Presented:</u>			
N.O. Lakefront Levee, London Avenue to West End		Initiate	This item is a portion of N.O. Lakefront Levee west of I.H.N.C. previously presented.
N.O. Lakefront Levee, Floodwall at Marc/Topaz		Initiate	-do-
N.O. Lakefront Levee Floodwalls at Am. Standard Plant		Initiate	-do-

1 January 1985
New Orleans District

AND SCHEDULE: (Cont'd)

Chalmette Unit

Not Presented:

Vicinity Paris Road Bridge, Floodwall capping

Present Schedule

Initiate and Complete

Remarks

Based on recent surveys, this item has been advanced from future work.

Station 65 to 278 (1st Enlgt)

Initiate

Based on recently acquired rights-of-way, this item has been advanced 15 months.

c. Construction Difficulties: None.

PHYSICAL DATA CHANGES: Physical data have been updated from that last presented to Congress to reflect the selection of the High Level Plan of Protection in lieu of the Barrier alternative:

- a. The average levee height has been changed from 13 feet to 16 feet to compensate for the loss of the barrier structures.
- b. Dam closures have been changed from 9 to 2 because the only closures associated with High Level Plan are located at Bayou Bienvenue and Bayou DuPRE Control Structures.
- c. Drainage structures were increased from 7 to 9 based on the elimination of 3 due to the loss of the Barrier Structures and the addition of 5 required for the High Level Plan in New Orleans West Unit.
- d. The Floodwalls were increased from 15.5 miles to 17.9 miles based on the additional protection requirement in New Orleans East Unit for the High Level Plan.
- e. Floodgates were changed from 3 to 2 based on 1 being eliminated at the Chef Menteur Complex and 2 remaining at Bayou Bienvenue and Bayou DuPRE Control Structures.
- f. Three Control Valve Structures have been added for the 3 outfall canals in New Orleans East Unit.
- g. Three Control Structures, 13.3 miles of channels, and 2 locks have been deleted based on the elimination of the Barrier Plan.

OTHER DATA CHANGES: Data relative to the Barrier Unit of the project has been removed from the justification sheet since this unit is not required under the High Level Plan of protection.

1 January 1985
New Orleans District

LOCAL COOPERATION: (Refer to YDT0-13)

Rights-of-way Schedule for Items Which Could Be Initiated In the Remainder of the Current Fiscal Year and In the Budget Fiscal Year.

<u>Item of Work</u>	<u>Action taken by District</u>	<u>Scheduled Date for Receipt of R/W</u>	<u>Date R/W Was Obtained</u>	<u>Scheduled Award Date Actual (A)</u>
<u>NEW ORLEANS EAST UNIT</u>				
New Orleans Lakefront Levee London Avenue to West End	Requested 27 Dec 84	Jan 85		Mar 85
New Orleans Lakefront Levee Floodwall at American Standard Plant	Requested 27 Dec 84	Feb 85		Mar 85
New Orleans Lakefront Floodwall at Marc/Topaz	To be Requested Jan 85	Feb 85		May 85
NOE BK Levee-Sta. 770 to 1007	To be requested Apr 85	Dec 85		May 86
NOE LKFT Levee-Paris Road to S. Point FSP	To be requested Jan 85	Jun 85		Aug 85
Citrus LKFT-IHNC to Paris Road FSP	Requested 3 Jul 84	--	19 Nov 84 <u>1/</u>	Feb 85
<u>Chalmette Unit</u>				
Vic. Paris Rd. Bridge Floodwall Capping	Requested 27 Dec 84	Jan 85		Mar 85
Station 65 to 278 1st Enlgt	Requested 29 Nov 84	Jan 85		Mar 85
Station 355 to 682 Final Enlgt	To be requested Mar 85	Jun 85		Aug 85

1/ Assurances not signed by LMVD

PROBLEMS: All questions were fully answered in last year's appropriation hearing.

ADDITIONAL INFORMATION:

a. Florida Avenue Complex. The addition of a major pumping station has been approved for the Florida Avenue Complex in addition to vertical lift gates in the drainage canal. The current cost estimate includes the vertical lift gates and the pumping station. Since the pumping station is an interior drainage item, local interests will fund and construct the station as part of their required project contribution. In addition, local interests plan to construct the floodwall reaches in this vicinity on both sides of the Inner Harbor Navigation Canal as a work-in-kind contribution.

b. St. Charles Parish Lakefront Levee. In view of the need for further environmental studies, as well as the inclusion of bayous LaBranche and Trepagnier in the Louisiana Natural and Scenic River System, the construction of this levee has been deferred. As a result of litigation on the project, alternatives to the authorized lakefront levee in St. Charles Parish were examined. Based on completed environmental studies the most favorable alternative is a levee which would generally parallel and run north of Airline Highway (US Highway 61). This alignment is recommended as part of the High Level Plan of Protection.

c. Mandeville Seawall. The Mandeville Unit portion of the project had previously been placed in an indefinite category due to local interests' objections to the project. St. Tammany Parish Police Jury refused to furnish the financial assurances. (Refer to YDFO-12, Current Status of Assurances, Lake Pontchartrain Barrier Plan.) By virtue of a meeting on 6 July 1978 and a letter dated 8 August 1978, the mayor of Mandeville indicated interest in the seawall repairs. In October 1980 the town of Mandeville furnished a letter of intent to provide the financial support for the seawall restoration, providing that the restoration could be accomplished in such a way as to not preclude future recreational swimming at the seawall. A special election was held in St. Tammany Parish on 22 October 1983 to authorize the levy of a special tax to repair or replace the seawall at Mandeville. This tax failed to pass; therefore, the completion date for the Mandeville Seawall is now indefinite.

d. Report of Significant Post-Authorization Changes.

(1) In compliance with OCE letter dated 21 November 1973, subject, "Lake Pontchartrain, Louisiana and Vicinity, Lake Pontchartrain Barrier Plan Report on size selection, Chef Menteur Navigation Structure and the Rigolets and Seabrook Locks," and LMVD 1st Ind thereto, a significant post-authorization change report was prepared and submitted by NOD for review and approval on 7 January 1974. The report was returned by OCE on 16 December 1974 for additional information. A Public Meeting was held on 22 February 1975 in which comments were received on the sizes of the navigation structures. Additional work on the report was delayed until a review of the previous sizing decisions could be made. This review was completed and a new report was submitted on 25 June 1976. This report which covers the Rigolets Lock only was approved by OCE on 21 September 1976, subject to agreement with the local sponsor, which has been subsequently received.

(2) Public opposition to the environmental impacts of the Barrier Plan resulted in a court-ordered revision to the EIS. This resulted in a project reevaluation which recommended a design change from the previously authorized Barrier Plan of the Protection to a high level plan without the barrier structures. The final Reevaluation Report and a required post authorization change report was completed and forwarded to higher authority on 8 August 1984.

1 January 1985
New Orleans District

ADDITIONAL INFORMATION: (Cont'd)

e. Save Our Wetlands Suit. Save Our Wetlands, Inc., filed suit on 8 December 1975 in United States District Court for the Eastern District of Louisiana against the New Orleans District Engineer, the Secretary of the Army, the Administrator of the Environmental Protection Agency, and the President of the Orleans Levee Board. The Clio Sportsman's League joined the suit on 21 June 1976. The suit alleges the following:

- (1) that the regional cumulative Environmental Impact Statement should be accomplished prior to proceeding with the project;
- (2) that the Corps has not complied with the conditions of final approval by the Environmental Protection Agency of Section 404 requirements of the Federal Water Pollution Control Act;
- (3) that the Corps has not completely eliminated the St. Charles Parish lakefront levee as required by the Environmental Protection Agency.

The Government moved to dismiss the lawsuit based on laches and the contention that the allegations of the plaintiffs were not liable to trial in a court of justice under the National Environmental Policy Act. A hearing was held on 5 November 1976 and the court denied the motion on 7 December 1976. In addition, a hearing was held on 15 December 1976 on the Orleans Levee District's (a co-defendant) motion to dismiss issues regarding assurances for the project. The court denied the motion. On 30 December 1977, Judge Charles Schwartz, of the Federal District Court in New Orleans, issued an order enjoining any further construction of the Chef Menteur and Rigolets Complexes, New Orleans East Area (East of Paris Road), and the Chalmette Area of the project until a new environmental statement is prepared.

The suit also seeks to have the New Orleans East Lakefront Levee removed and to have three openings for tidal interchange provided under the Southern Railroad embankment. However, on 8, 10, and 27 March 1978 Judge Charles Schwartz lifted the injunction on the New Orleans East Area (East of Paris Road) and on 10 March 1978 he lifted the injunction on the Chalmette Area Plan.

f. St. Tammany Parish Police Jury Suit. This agency has also filed a lawsuit on 30 March 1977 attacking the project. Their suit was similar to the Save Our Wetlands suit and was combined with that suit.

g. St. Charles Parish Suit. On 12 April 1977 an unincorporated association of citizens and property owners filed suit against the project in an effort to force construction of the St. Charles Parish lakefront levee, which is indefinitely deferred for environmental reasons, or, in the event the levee is not built, to force the Government to purchase lands in St. Charles Parish which may otherwise be subject to tidal flooding. The U.S. Attorney sought dismissal on the grounds that the plaintiffs lacked cause of action upon which relief could be granted by the court. At a 17 May 1978 hearing, Judge Charles Schwartz declared that the suit was premature and deferred further consideration until completion of the revised EIS.

h. Deferred Payment Plan. The modification authorized by the Water Resources Development Act of 1974, whereby local interests may agree to pay the unpaid balance of the cash payment due, with interest, in yearly installments, has provided immediate relief to local interests. Initial cash payments were received from local interests in FY 1977 and they have expressed their appreciation of the plan.

i. General - Because of the widespread interest which had been expressed with regard to the Barrier portion of the project, the Sub-Committee of Water Resources for the House Public Works and Transportation Committee held a hearing in New Orleans on 5 February 1978. The purpose of the hearing was to obtain information on the hurricane protection plan for the project and to give interested parties an opportunity to make their views known.

ADDITIONAL INFORMATION: (Cont'd)

j. Chalmette Unit Economic Analysis. Since the Chalmette Unit is a separate entity from an engineering, hydrological, and economic standpoint, the court has required that a separate economic reanalysis for this unit be conducted separate and apart from the Lake Pontchartrain Hurricane Protection project economic reanalysis.

k. High Level Plan. A public meeting was held in New Orleans on 21 November 1981 to seek public comment on the tentatively selected High Level Plan. The High Level Plan will provide for heightening and strengthening the existing hurricane protection levee systems in Orleans Parish, the east bank of Jefferson Parish, and in St. Bernard Parish; repairing and rehabilitating the Mandeville Seawall in St. Tammany Parish; building a new mainline hurricane levee on the east bank of St. Charles Parish, just north of US Highway 61 (Airline Highway); raising and strengthening the existing levee which extends along the Jefferson-St. Charles Parish boundary between Lake Pontchartrain and Airline Highway; and deferring construction of the proposed Seabrook lock until its feasibility as a feature of the Mississippi River-Gulf Outlet navigation project can be determined. Areas inclosed by the levee and floodwall construction will be provided protection against tidal surge flooding resulting from the Standard Project Hurricane (SPH). The public response is heavily in favor of the High Level Plan.

The draft Reevaluation Study (including a draft EIS) recommending the High Level Plan was submitted by New Orleans District for higher level review on 15 December 1982. The Reevaluation Report was released to the public and filed with the EPA on 16 December 1983.

A public meeting to discuss the High Level Plan was held on 28 June 1984. The final report, EIS, and post authorization change report recommending the High Level Plan was forwarded to higher authority on 8 August 1984. Under the discretionary authority of the Chief of Engineers, final approval is expected in January 1985.

ENVIRONMENTAL INFORMATION:

* a. Status of Environmental Impact Statement. - The final Environmental Impact Statement was filed with the Council on Environmental Quality on 17 January 1975. By Court Order dated 30 December 1977, a revised Environmental Impact Statement was ordered. ~~Preliminary alternative plan studies and environmental investigations indicated the "High Level" alternative to the authorized Barrier Plan of protection merits further consideration.~~ A draft revised Environmental Impact Statement for the High Level Plan and the reevaluation report which documents the proposal to adopt that plan instead of the Barrier Plan was released to the public and filed with the Environmental Protection Agency on 16 December 1983. The final revised Environmental Impact Statement was filed with the Environmental Protection Agency on 7 December 1984.

b. Changes in Environmental Impact Statement Scheduling. The schedule for submission of the final EIS slipped 4 months (August 1984 to December 1984) from that last submitted to Congress. This slippage results from delay in receiving approval from the ASA to proceed with the EIS and Reevaluation Report.

1 January 1985
New Orleans District

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1 January 1985
New Orleans District

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k. High Level Plan. A public meeting was held in New Orleans on 21 November to seek public comment on the tentatively selected High Level Plan. The High Level Plan will provide for heightening and strengthening the existing hurricane protection levee systems in Orleans Parish, the east bank of Jefferson Parish, and in St. Bernard Parish; repairing and rehabilitating the Mandeville Seawall in St. Tammany Parish; building a new mainline hurricane levee on the east bank of St. Charles Parish, just north of US Highway 61 (Airline Highway); raising and strengthening the existing levee which extends along the Jefferson-St. Charles Parish boundary between Lake Pontchartrain and Airline Highway; and deferring construction of the proposed Seabrook lock until its feasibility as a feature of the Mississippi River-Gulf Outlet navigation project can be determined. Areas inclosed by the levee and floodwall construction will be provided protection against tidal surge flooding resulting from the Standard Project Hurricane (SPH). The public response is heavily in favor of the High Level Plan.

The draft Reevaluation Study (including a draft EIS) recommending the High Level Plan was submitted by New Orleans District for higher level review on 15 December 1982. The Reevaluation Report was released to the public and filed with the EPA on 16 December 1983.

A public meeting to discuss the High Level Plan was held on 28 June 1984. The final report, EIS, and post authorization change report recommending * the High Level Plan was forwarded to higher authority on 8 August 1984 and approved on 7 February 1985. *

ENVIRONMENTAL INFORMATION:

* a. Status of Environmental Impact Statement. - The final Environmental Impact Statement was filed with the Council on Environmental Quality on 17 January 1975. By Court Order dated 30 December 1977, a revised Environmental Impact Statement was ordered. A draft revised Environmental Impact Statement for the High Level Plan and the reevaluation report which documents the proposal to adopt that plan instead of the Barrier Plan was released to the public and filed with the Environmental Protection Agency on 16 December 1983. The final revised Environmental Impact Statement was filed with the Environmental Protection Agency on 7 December 1984. *

b. Changes in Environmental Impact Statement Scheduling. The schedule for submission of the final EIS slipped 4 months (August 1984 to December 1984) from that last submitted to Congress. This slippage results from delay in receiving approval from the ASA to proceed with the EIS and Reevaluation Report.

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ENVIRONMENTAL INFORMATION: (Cont'd)

c. Environmental Opposition. -

(1) The known environmental opposition to the barrier plan of protection for the Lake Pontchartrain, Louisiana, and Vicinity Hurricane Protection project is summarized below:

(a) The Orleans Audubon Society opposes the disposal and ponding of dredged material in the marshes along the Chef and Rigolets Passes, along the MR-90 and in New Orleans East, and the proposed borrow area on Apple Pie Ridge along US Highway 90. They believe these disposal and borrow plans will destroy valuable marshland that Louisiana cannot afford to lose. They also recommend that levees be built around populated areas only and the Barrier Plan be eliminated.

(b) The Louisiana Wildlife Federation recommends that the St. Charles Parish segment be eliminated from the project plan because it will investigate further encroachment and deterioration of a rapidly dwindling and fragile marsh ecosystem. They feel that the placing of the barrier structures as proposed on the Rigolets and Chef Menteur Pass may have severe, irreversible consequences on the delicate balance which differentiates between the fine line which constitutes a fresh and a saline marsh ecosystem.

(c) The Sierra Club, Delta Chapter, believes that wetlands represent economic, environmental, and recreational values which are far more important to the public interest than the claimed benefits from developing such lands for increased taxes. For this reason they recommend that the project should be used to protect existing settlement, and not to encourage intensive development in one of the large flood plains between the Mississippi River and the Gulf of Mexico.

(d) The Bonnet Carre' Rod and Gun Club and the St. Charles Environmental Council oppose the lakefront levee in St. Charles Parish. They favor a hurricane protection levee generally along Airline Highway (US Hwy 61) in St. Charles Parish. They believe this alignment would be environmentally acceptable and would still protect the presently developed areas in St. Charles Parish.

(e) The Clio Sportsman's League of New Orleans' position is that they favor hurricane protection but oppose the "so called" policy of unnecessary private land enhancement at the expense of the public and the environment. They opine that the barriers with its borrow, disposal and ponding areas, and accompanying future developments will play a leading role in the destruction of Lake Pontchartrain and, eventually, the entire Maurepas, Pontchartrain, Catherine and Borgne estuary system.

(f) The St. Tammany Environmental Council is of the opinion that the acknowledged and potential adverse environmental and economic impact of the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection plan far outweighs the benefits our population may receive in the form of hurricane protection.

(g) The St. Tammany Sportsman's League is opposed to the "Floodgates" at the Rigolets because they say it will destroy the interplay between the lake and the marshes which supplies 50 percent of all nutrients that feed the flora and fauna in Lake Pontchartrain. "The loss of these nutrients will result in the death of the lake," they opine.

ENVIRONMENTAL INFORMATION: (Cont'd)

(h) The Environmental Defense Fund has expressed concern regarding the whole project, more specifically the New Orleans East Area. They consider the wetlands in the New Orleans East Area are still viable and could be restored to a high level of productivity given appropriate redesign of the levees; provision for tidal flows and water circulation; and stringent regulation of dredge, fill, and drainage activities in accordance with the Corps' regulations and wetland policy.

(2) Environmental opposition to the High Level Plan centers on two major issues. Fourteen groups have expressed concern over the proposal to locate borrow pits in Lake Pontchartrain near the Jefferson Parish Lakefront. Possible adverse water quality impacts are the primary concern. Eleven of these groups have expressed opposition to the inclosure of wetlands by the hurricane protection levee in New Orleans East. Four groups also oppose the levee alignment in St. Charles Parish because the levee would inclose a wetland and may subject it to development in the future. To date, there are no court injunctions filed against this plan.

d. Other Environmental Opinions.

(1) The US Fish and Wildlife Service and the National Marine Fisheries Service have fully cooperated in developing a plan for hurricane protection for the metropolitan area of New Orleans that will alleviate, to the fullest extent feasible, any project impacts on the fish and wildlife resources in the area. Both have opposed the St. Charles Parish lakefront levee and have made specific recommendations in the other segments of the project to help minimize the destructive features of the project.

(2) The Environmental Protection Agency has also fully cooperated in helping us to develop an environmentally feasible plan. In their review of the statement of findings for the plans for placement of dredged material for this project they stated that tidal interchange should be allowed into the New Orleans East area until developed areas are threatened.

e. Environmental Studies.

(1) Phase I of the biological transport studies contract entered into with the Louisiana State University along with a preliminary Phase II scope study based on Phase I data have been completed. The remaining portions of the contract have been terminated at the request of LMVD due to the preference for the high level plan.

(2) The EPA in their review of the 404 proceedings have requested us to study whether the drainage structures in the South Point to GIWW levee can be changed with regards to their operation. They would like to see the structures remain open during normal tidal conditions to nourish the marsh in New Orleans East with the lake water. The Louisiana Wildlife Federation and the US Fish and Wildlife Service are supportive of this recommendation. We coordinated this request with the Orleans Levee District, the Sewerage and Water Board, the Mosquito Control Board, and the City Planning Commission and found extensive opposition. As a result of this opposition and since Fish & Wildlife Management is not an authorized federal program purpose, re-establishment of tidal exchange is not recommended in the Reevaluation Report/EIS released to the public in December 1983.

(3) The New Orleans City Planning Commission has requested us to study the possibility of purchasing wetlands outside the protected area to mitigate the loss of wetlands included in the project. This feature is being included in our mitigation report.

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ENVIRONMENTAL INFORMATION: (Cont'd)

(4) In addition to the contracts in para e(2) above, the Louisiana State University (LSU) and the University of New Orleans (UNO) were contracted to study tidal transport in the Chef Menteur and Rigolets Passes and at the site of Seabrook Lock. LSU was responsible for physical and biological transport studies and UNO for chemical transport studies. The contracts were broken down into two phases: Phase I, which is complete, consisted of study design, and phase II was to consist of a one year sampling program and data analysis. Prior to initiation of phase II work, the LSU and UNO contracts were terminated.

f. Status and Impact of Compliance with Section 404, Clean Water Act of 1977. The provisions of Section 404 of the Clean Water Act have been met by a Statement of Findings signed by the District Engineer on 20 August 1975 for the majority of the project. The provisions of Section 404 of the Clean Water Act for work after 1 October 1981 have been met for the Chalmette Unit by a Supplemental Section 404(b)(1) Evaluation Report, signed by the District Engineer on 15 November 1982; for the New Orleans East Unit by a Supplemental Section 404(b)(1) Evaluation Report signed by the District Engineer on 18 November 1983; and for the New Orleans West/Mandeville Unit by a Supplemental Section 404(b)(1) Evaluation Report on 18 November 1983. A Public Notice for the High Level Plan was issued on 28 March 1984, and certification from the State of Louisiana was received on 29 June 1984.

1 January 1985
New Orleans District

DATA FOR TESTIFYING OFFICERS ON FY 1986 CIVIL WORKS BUDGET

LAKE PONTCHARTRAIN, LA, AND VICINITY

AUTHORIZATION:

Authorization Documents-

Authorizations

Estimated Cost and
Year of Price Level

FC Act of 1965 dated
27 October 1965 (PL 89-298)
(HD 231/89/1)

A program for protection from hurricane flood levels at New Orleans, LA, and surrounding areas by means of levees, floodwalls, control structures, navigation structures, locks, dams and drainage structures.

\$56,235,000 (1961) 1/

Water Resources Development Act
of 1974 dated 7 March 1974
(PL 93-251) Section 92

A modification of the FC Act of 1965 (PL 89-298) to provide that non-Federal public bodies may agree to pay the unpaid balance of the cash payment due with interest, in yearly installments.

1/ This is net cost to the Federal Government. The gross cost is \$60,185,000. The difference is \$3,950,000, which is capitalized value at 3 1/8 percent interest over 100 years for O&M on Rigolets Lock which is to be contributed by local interests and used by the Federal Government for project construction.

Monetary Authorization. Full monetary authorization was provided in the Flood Control Act of 27 October 1965.

NEED FOR THE PROJECT: The project is located in southeastern Louisiana in the vicinity of Lake Pontchartrain and includes the city of New Orleans and surrounding areas. The project area is susceptible to flooding from wind-driven hurricane tides from Lake Pontchartrain, Lake Borgne, and the Gulf of Mexico. Historical hurricanes have produced recorded stages up to 13 feet on the southwest shore of the lake, 6.2 feet at the south shore, 7.1 feet at the southeast shore, and 7.7 feet at the north shore. The protective works have been overtopped and developed areas flooded by surges from hurricanes several times in recent years.

In 1915, the 7.7 foot stage on the north shore and the 13 foot stage on the southwest shore caused considerable flooding.

The 1947 hurricane caused extensive flooding in Jefferson Parish when a lakeshore embankment proved inadequate to prevent overtopping, even though the stage was only about 5 feet. Considerable overtopping of the New Orleans seawall occurred during this storm and about 9 square miles of residential area were flooded.

LAKE PONTCHARTRAIN, LA, AND VICINITY

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NEED FOR THE PROJECT: (Cont'd)

In 1956 the New Orleans seawall was again overtopped, resulting in the flooding of about 2.5 square miles of residential and commercial area in the lakefront area.

Hurricane Betsy in September 1965 caused extensive flooding of urban areas of the New Orleans area to depths of up to 10 feet.

Hurricane Camille in August 1969 caused flooding of low lying areas adjacent to the IHNC.

Although Hurricane Carmen in September 1974 caused little flooding in the project area, it was rated by the National Weather Service as more dangerous than Hurricane Betsy. Had Carmen continued its northerly course or shifted slightly to the east, it would have passed thru the vicinity of New Orleans and would have caused extensive flooding within the project area.

Wave action during moderate to high lake stages has undermined the existing seawall at Mandeville, causing it to become ineffective as a hurricane protective structure.

On several occasions, the area between Lake Pontchartrain and Lake Borgne has been flooded by stages up to 11 feet.

Much of the developed area in New Orleans and in Jefferson Parish is below normal lake level; some land being as low as 7 feet below national geodetic vertical datum, with a considerable portion lower than 2 feet below national geodetic vertical datum. Stages attending a standard project hurricane would cause overtopping of all existing protective works by several feet and ponding as deep as 16 feet in the developed areas and the pumping system on which removal of all flood waters is dependent would be inoperable for an extended period of time. This prolonged inundation would cause enormous damage to private and public property, would create serious hazards to life and health, would disrupt business and community life, and would require an immense expenditure of public and private funds for evacuation and subsequent rehabilitation of local residents.

Prior to construction of the Mississippi River-Gulf Outlet navigation project, tidal flow between Lake Pontchartrain and Lake Borgne was interchanged through the Rigolets, Chef Menteur Pass, and the Gulf Intracoastal Waterway-Inner Harbor Navigation Canal channel. Salinities of the incoming tides from Lake Borgne were reduced primarily by fresh water flows from the Pearl River basin, and from the northern tributary inflow to Lake Pontchartrain. However, the Mississippi River-Gulf Outlet project now permits tidal flows from Breton Sound and the Gulf of Mexico to enter Lake Pontchartrain directly through the Inner Harbor Navigation Canal via its enlarged channel. As a result, salinities in the lake have increased significantly. Also, increased current velocities in the Inner Harbor Navigation Canal caused by the Gulf Outlet navigation project have resulted in an increase in navigation difficulties and the creation of major scour problems along existing bridges and harbor developments. The restricted section through the Seabrook Bridge has enlarged greatly since construction of the Gulf Outlet project.

PLAN OF IMPROVEMENT:

The current recommended plan for protection from hurricane flood levels consists of the following:

- a. A new levee is to be constructed parallel to and immediately north of US Highway 61, between the levee along the Jefferson-St. Charles Parish boundary and the east Bonnet Carre' Spillway guide levee.
- b. A new levee is to be constructed along the Jefferson Parish lakefront.
- c. The New Orleans lakefront levee landward of the seawall is to be enlarged.
- d. Enlargement of existing levees, construction of new levees, and a concrete-capped sheetpile wall are to be constructed along the east and west levees of the Inner Harbor Navigation Canal in New Orleans.
- e. A new levee and floodwall are to be constructed along the lakefront extending from the floodwall at the New Orleans Airport to South Point.
- f. The levee from South Point to the GIWW is to be enlarged.
- g. The levee along and north of the Mississippi River-Gulf Outlet and Gulf Intracoastal Waterway from the Inner Harbor Navigation Canal to the beginning of the barrier is to be enlarged and floodwalls constructed where necessary.
- h. A new levee is to be constructed to protect the area generally referred to as the Chalmette area and will extend from the Inner Harbor Navigation Canal levee along and on the south bank of the Mississippi River-Gulf Outlet to a point approximately 2-1/2 miles northeast of Verret and then in a generally westerly direction to the Mississippi River Levee near Caernarvon.
- i. The existing Mandeville seawall on the north shore will be strengthened at its present height.
- j. A new pumping station and vertical lift gates for the Florida Avenue Complex are to be constructed. This will complete the protection provided in the Inner Harbor Navigation Canal System. (See above.)

LAKE PONTCHARTRAIN, LA, AND VICINITY

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CHANGE IN SCOPE:

<u>Year</u>	<u>Change In Scope since Authorization</u>	<u>Estimated Cost</u>
1967	The authorized alignment of protective works in the vicinity of Chef Menteur Pass was modified and the New Orleans East Levee was extended to Chef Menteur Pass under the discretionary authority of the Chief of Engineers to provide protection for an additional 1,533 acres. The letter report recommending this modification was submitted to OCE 28 March 1967.	\$4,775,600
1967	The project was also modified under the discretionary authority of the Chief of Engineers to delete from the Lake Pontchartrain project as a mitigating measure the costs of protecting a portion of the foreshore along the Mississippi River-Gulf Outlet project. Construction of the Mississippi River-Gulf Outlet project exposed levees of substantial size and the foreshore between them and the project channel along both banks of the project navigation canal in the City of New Orleans to direct attack with resultant damages from waves generated by seagoing vessels utilizing the waterway. The navigation project should have included adequate provisions for protecting these levees and their foreshore from damage. The new levees in this project located adjacent to the ship channel will also require protection. The costs deleted from this project have been added to the Mississippi River-Gulf Outlet project. (There are about 6 miles along the north bank and 18 miles along the south bank of the navigation project that require protection.) GDM No. 2, Supplement No. 4, Mississippi River-Gulf Outlet, La., Foreshore Protection was submitted to OCE 29 May 1968.	-3,495,000
1967	In accordance with the desires of local interests the project was again modified under the discretionary authority of the Chief of Engineers to provide protection <u>to a larger area in the vicinity of New Orleans known as the Chalmette area. This change incorporated the need to increase levee heights to accommodate the new hurricane parameters.</u> This modification will provide protection for an additional 18,800 acres. The letter report recommending this modification was submitted to OCE on 12 December 1966.	\$12,938,700
	The Director of Civil Works by letter of 27 November 1967 informed the Chairmen of the Committees on Appropriations of the House and Senate that the above changes in scope had been approved by the Chief of Engineers.	

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The Office, Chief of Engineers, by letter report dated 17 December 1968, informed the Bureau of the Budget of an increase in cost from \$136,200,000 to \$166,000,000 in accordance with ER 1165-2-305 dated 25 Sep 68, "Significant Post-Authorization Changes in Corps of Engineers Projects". This change was approved by the Office of Management and Budget on 25 March 1969.

1984 The Reevaluation Study, dated July 1984, recommends the use of the High Level Plan rather than the Barrier Plan. The plan would provide for improving the existing hurricane protection levee systems in Orleans Parish and the east bank of Jefferson Parish, improving existing levees and constructing new ones in St. Bernard Parish, repairing and rehabilitating the Mandeville Seawall in St. Tammany Parish, building a new mainline hurricane levee on the east bank of St. Charles Parish immediately north of US Highway 61 (Airline Hwy), raising and strengthening the existing levee which extends along the Jefferson-St. Charles Parish boundary between Lake Pontchartrain and Airline Highway, and deferring construction of the proposed Seabrook Lock until its feasibility as a feature of the MRGO navigation project can be determined.

MAJOR CHANGES IN DESIGN:

When?

- a. The net grades of all the protective levees and structures, except for the levees and structures adjacent to the Chef Menteur Pass and the Rigotets, were revised upward by 1 to 2 feet in accordance with the results of tidal hydraulic studies utilizing more severe hurricane parameters developed by the U.S. Weather Bureau subsequent to project authorization.
- b. A pumping plant was added to the Florida Avenue Complex to provide uninterrupted drainage relief during hurricane conditions.
- c. The reevaluation of the project resulted in the recommendation for a design change from the authorized Barrier Plan of protection to a High Level Plan without barrier structures. Under the High Level Plan the design height of the levees and floodwalls proposed for the Barrier Plan would be increased to contain the higher lake levels that would occur without the barrier structures.

BENEFIT-COST RATIO:

- a. Period of Economic Analysis. - The economic life of the project is 100 years based on our estimate that protection from hurricane tidal overflow to this area will be needed long beyond the life of the project.
- b. Derivation of B/C Ratio. - The project functions independently. Preproject levees provide the area a degree of protection from headwater and tidal overflow and no benefits are claimed for this protection. Benefits credited to the total project consist of reduction of flood damage from hurricane tidal overflow including that damage caused by overtopping existing levees.
- c. Composite B/C Ratio. - Although the Chalmette Area Plan will function as a separable unit, the B/C ratio is presented for the total project plan. The benefit-cost ratio was derived by measuring the total benefits credited to these hurricane barrier plan components against their total costs.

STATUS AND SCHEDULE, PLANNING:a. Design Memorandums.

Item	% Complete 1 Jan 85	Est % Complete 30 Sep 85	Actual (A) or Scheduled (S) Submission Date to LMVD
Reevaluation Report (draft)	100	100	15 Dec 82 (A)
Reevaluation Report (final)	100	100	8 Aug 84 (A)
Mandeville Seawall	70	70	Indefinite 1/
GDM No. 13, New Orleans Lakefront West of IHNC	100	100	30 Nov 84 (A)
GDM No. 14, Citrus Lakefront	100	100	31 Jul 84 (A)
GDM No. 15, New Orleans East Lakefront Levee	75	100	Feb 85 (S)
GDM No. 20, Orleans Parish Outfall Canals	35	75	Apr 86 (S)

1/ Completion of report has been delayed until local interests can reach a decision as to plan of improvement to be used for seawall restoration. The voters of the town of Mandeville, LA, voted against the proposal on 22 October 1983.

LAKE PONTCHARTRAIN, LA, AND VICINITY

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New Orleans DistrictSTATUS AND SCHEDULE, PLANNING: (Cont'd)b. Plans and Specifications.

Item	% Complete 1 Jan 85	% Complete 30 Sep 85	Actual (A) or Scheduled (S) Submission Date to LMVD	Scheduled Award (A) Date
<u>NEW ORLEANS EAST UNIT</u>				
Citrus Lakefront Levee IHNC-Paris Road FSP	100	100	30 Jul 84 (A)	Feb 85
New Orleans Lakefront Levee - London Ave to West End	100	100	Jan 85	Mar 85
New Orleans Lakefront Levee - Floodwall at American Standard Plant	100	100	N/A ^{1/}	Mar 85
New Orleans Lakefront Levee - Floodwalls at Marc/Topaz	40	100	N/A ^{1/}	May 85
New Orleans East Lakefront Levee - Paris Road to Sout Point FSP	95	100	Feb 85	Aug 85
New Orleans East Back Levee Station 770 to 1007	10	100	Oct 85	May 86
<u>CHALMETTE UNIT</u>				
Station 355 to 682 (Final Enlargement)	95	100	Feb 85	Aug 85

^{1/} Work Items estimated at less than \$1,000,000PHYSICAL DATA:a. Land Requirements.

(1) Scope, Status and Schedule of Acquisition: Acquisition of lands, easements, R/W and disposal areas is the responsibility of local interests.

b. Recreation Facilities. Not applicable.c. Disposal Areas. Easements for disposal areas are the responsibility of local interests.d. Operator's Quarters. None.

JUSTIFICATION:

a. Flood Damages. The duration of flooding within the project areas extends up to 2 weeks. Wind driven hurricane waters overtopping the levees become entrapped behind the levees. If the levee is seriously eroded, the water will slowly recede with the reduction in tides, but must also be pumped; if the levee remains intact, portions of it are degraded to facilitate removal of flood waters along with supplementary pumping. Depth of flooding caused by Hurricane Betsy of September 1965 varied to a maximum of approximately 10 feet in urban areas; this storm is also considered the flood of record.

The project is designed to protect against a hurricane with a frequency of about once in 250 years. The 1965 hurricane approached the design hurricane in magnitude in part of the area. The high order protection was selected because of the urban character of much of the region and the hazard to life.

<u>Description of Flood Area</u>	<u>Design Flood 1/</u>	<u>Protected by Authorized Works Against Design Flood</u>
Number of Acres:	(501,780)	(501,780)
Residential	33,530	33,530
Commercial, Industrial	14,510	14,510
Open Land (Idle)	28,760	28,760
Woods, Swamp, Marsh	414,010	414,010
Other Developed Land	10,970	10,970
Value of Lands and Improvements	(\$21,481,000,000) <u>2/</u>	(\$21,481,000,000)
Lands	7,327,000,000	7,327,000,000
Improvements	14,154,000,000	14,154,000,000
Population (1980)		
Residing	815,000	
Working (Addition to Residing)	80,000	

1/ Based on theoretical design flood which has yet to be experienced.

2/ Escalated to October 1984 price levels.

LAKE PONTCHARTRAIN, LA, AND VICINITY

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JUSTIFICATION:

b. Flood History. Legend: Actual Acres Flooded=(c)-(e); Actual \$ Damages= (f)-(h); N.O.= Not Operable.

Flood Date	Natural Stage	Area (Acres)			Damages (Dollars)			
		Flooded Without Project	Protected With Project In Full Operation	Protected at Time of Flood	Without Project	Preventive at Time of Flooding With Project In Full Operation	Prevented at time of Flood	Preventable Under Present Condition with Project In Full Operation
		(c)	(d)	(e)	\$ (f)	\$ (g)	\$ (h)	\$ (i) 2/
Aug 1969 (Camille)	1/	23,000	23,000	22,000	92,500,000	91,500,000	90,000,000	322,800,000
Sep 1965 (Betsy)	1/	23,000	23,000	N.O.	85,000,000	85,000,000	N.O.	422,132,000
Sep 1956 (Flossy)	1/	8,000	8,000	N.O.	750,000	750,000	N.O.	3,108,000
Sep 1947	1/	33,000	33,000	N.O.	5,300,000	5,300,000	N.O.	51,033,000

	1/ HIGHEST RECORDED STAGE (N.G.V.D.)			
	Aug 1969	Sep 1965	Sep 1956	Sep 1947
Lake Pontchartrain at West End	5.2 ft.	7.6 ft.	5.5 ft.	5.46 ft.
Rigolets Pass near Lake Pontchartrain	9.0 ft.	7.0 ft.	6.49 ft.	7.18 ft.

2/ October 1984 price levels.

c. Power. Not applicable.

LOCAL COOPERATION: 1/ (October 1984 price levels)

a. Requirements. Prior to construction, local interests furnished assurances satisfactory to the Secretary of the Army that they will, without cost to the United States:

- (1) Provide all lands, easements and rights-of-way, including borrow and spoil disposal areas, necessary for construction of the project;
- (2) Accomplish all necessary alterations and relocations to roads, railroads, pipelines, cables, wharves, drainage structures, and other facilities made necessary by the construction works;
- (3) Hold and save the United States free from damages due to the construction works;
- (4) Bear 30 percent of the first cost, a sum presently estimated at \$201,000,000, to consist of \$86,140,000 for items listed in subparagraphs (1) and (2) above, and a cash contribution presently estimated at \$114,860,000 to be paid either in a lump sum prior to initiation of construction or in installments at least annually in proportion to the federal appropriation prior to start of pertinent work items in accordance with construction schedules, as required by the Chief of Engineers, or, as a substitute for any part of the cash contribution, accomplish, in accordance with approved construction schedule, items of work of equivalent value as determined by the Chief of Engineers, the final apportionment of costs to be made after actual costs and values have been determined.
- (5) Provide all interior drainage and pumping plants required for reclamation and development of the protected areas;
- (6) Maintain and operate all features of the works in accordance with regulations prescribed by the Secretary of the Army, including levees, floodgates and approach channels, drainage structures, drainage ditches or canals, floodwalls, seawalls, and stoplog structures, but excluding the Rigolets navigation lock and channel and modified dual-purpose Seabrook Lock; and
- (7) Acquire adequate easements or other interest in land to prevent encroachment on existing ponding areas unless substitute storage capacity or equivalent pumping capacity is provided promptly. Local interests are also required to comply with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646), in acquiring real property.

1/ The total non-Federal contribution including future reimbursement is determined as follows:

\$ Land and Relocations - \$86,140,000 + Cash/Equivalent Work Contribution - \$114,860,000 + Future Reimbursement - \$45,000,000 = \$246,000,000.

LAKE PONTCHARTRAIN, LA, AND VICINITY

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New Orleans District

LOCAL COOPERATION: (Cont'd)

b. Modification to Authorizing Law. Recognizing the increasing burden of providing required matching local funds, the former Representative F. Edward Hebert sponsored Congressional legislation to defer required local payments over an extended period of time. This legislation was enacted in February 1974, as Section 92 of the Water Resources Development Act of 1974. This act modifies the authorizing law by providing that non-Federal public bodies may agree to pay the unpaid balance of their required cash payment due, with interest, in annual installments in accordance with a formula specified by the Act.

c. Requirements of PL 91-611 and PL 91-646. (1) PL 91-611 - not applicable. Construction started prior to 1 January 1972. (2) PL 91-646 - a Constitutional Amendment was provided by the Louisiana Legislature on 1 February 1972 allowing local interests to comply. The estimated cost to local interests is \$45,000.

d. Current Status of Assurances. Assurances are required for the two independently justified plans authorized by Congress; the Chalmette Area Plan and the Lake Pontchartrain High Level Plan. Revised assurances from the Pontchartrain Levee District and the Jefferson Levee District are currently under review within COE channels.

(1) Chalmette Area Plan: The basic assurances for this plan have been accepted.

(a) Joint assurances of the St. Bernard Parish Police Jury and the Lake Borgne Basin Levee District were accepted on 28 September 1966. The Lake Borgne Basin Levee District and St. Bernard Parish Police Jury executed a new joint agreement of assurance covering all requirements of local cooperation and a deferred payment plan as authorized by PL 93-251 on 20 April 1976. These assurances were approved on behalf of the United States on 7 December 1977.

(b) Assurances from the Board of Commissioners of the Orleans Levee District were accepted on 10 October 1966. The assurances were amended on 16 September 1971 to reflect an increase in cost participation. These amended assurances, which supersede the 10 October 1966 assurances, were approved on behalf of the United States on 29 March 1974. The original assurances from the Orleans Levee District dated 10 October 1966 are considered in full effect. This 1966 assurance (for Chalmette Plan only) was supplemented to include PL 91-646 on 29 May 1975 and approved on behalf of the United States on 8 July 1975. The Orleans Levee District executed a new agreement of assurances covering all requirements of local cooperation and a deferred payment plan as authorized by PL 93-251 on 30 March 1976. These assurances were approved on behalf of the United States on 7 December 1977.

LOCAL COOPERATION: (Cont'd)d. Current Status of Assurances. (Cont'd)

(c) Supplemental assurances providing for Public Law 91-646: The Louisiana Office of Public Works, coordinating agency under 5 March 1971 designation by the Governor, was requested to have the St. Bernard Parish Police Jury and the Lake Borgne Levee District execute such supplemental assurances and a joint supplemental assurance dated 26 February 1975 was received from the agencies and approved on behalf of the United States on 17 March 1975.

(2) Lake Pontchartrain Barrier Plan. Basic assurances for the plan were obtained from the Board of Commissioners of the Orleans Levee District and accepted on 10 October 1966.

(a) The Orleans Levee District requested assistance in carrying out the assurances due to the rising non-Federal cost of participation and the widespread benefits to be derived by the surrounding parishes. The Governor of the State of Louisiana, by Executive Order (5 March 1971), designated the Louisiana Office of Public Works as the local coordinating agency. Through this procedure, the Pontchartrain Levee District, the St. Tammany Parish Police Jury, and the Orleans Levee District are the assurers for the Barrier Plan. See B below.

(b) Amended assurances to provide for an increase in cost participation were executed by the Orleans Levee District on 16 September 1971 and approved on behalf of the United States on 29 March 1974. The amended assurances supersede the 10 October 1966 assurances. Subsequent to the approval of the 1971 assurance, it became evident that problems existed in obtaining acceptable assurances from two agencies for this plan. For this reason, the original assurances from the Orleans Levee District dated 10 October 1966 are considered in full effect. The Orleans Levee District executed a new agreement of assurance covering all requirements of local cooperation and a deferred payment plan as authorized by PL 93-251 on 30 March 1976. These assurances were approved on behalf of the United States on 7 December 1977.

(c) Assurances providing for participation pursuant to the action of the Governor have been obtained from the Pontchartrain Levee District. Assurances on behalf of the St. Tammany Parish Police Jury were executed by the Governor on 8 May 1972 under Section 81, Title 38, Louisiana Revised Statutes of 1950 as amended. Neither of the last mentioned assurances has been accepted for lack of supporting documents. However, the Pontchartrain Levee District executed a new agreement of assurance covering all requirements of local cooperation and a deferred payment plan as authorized by PL 93-251 on 20 September 1976. On 19 October 1976, Governor Edwards executed an instrument designating, among other things, the Louisiana Office of Public Works to lend financial assistance in connection with this project. The Louisiana Office of Public Works executed an act of assurance dated 8 November 1976 agreeing: to fulfill all local cooperation requirements for that portion of the project in St. Tammany Parish; and to lend financial assistance after the Pontchartrain Levee District has contributed \$100,000 in cash toward that portion of the Barrier Plan which is the responsibility of that levee district. These assurances were approved on behalf of the United States on 7 December 1977.

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New Orleans District

LOCAL COOPERATION: (Cont'd)

d. Current Status of Assurances. (Cont'd)

(d) Supplemental assurances covering Public Law 91-646:

1. Supplemental assurances were executed by the Orleans Levee District on 21 September 1973.
2. Supplemental assurances were executed by Pontchartrain Levee District on 15 October 1973.
3. St. Tammany Parish Police Jury--the assurances executed by the Governor on 8 May 1972 included Public Law 91-646 requirements.

The assurances listed as items 2 and 3 above have not been accepted on behalf of the Government due to lack of supporting data; however, substitute assurances incorporating the deferred payment plan authorized by PL 93-251 and PL 91-646 have been executed by these levee districts. These assurances were approved on behalf of the United States on 7 December 1977.

The Water Resources Development Act of 1974, PL 93-251, was enacted on 7 March 1974. This act provided among other things, that local assuring agencies for this project (both plans) could, if they so choose, repay their cash obligation using a deferred payment plan. New Assurances have been executed by local interests incorporating a deferred payment plan and these assurances were approved by the Secretary of the Army on 7 December 1977. Local interests have been making payments under this plan. First payments were received in FY 1977.

* (3) High Level Plan: The New Orleans District forwarded proposed amended agreements of Local Cooperation which included the revised cost estimates contained in the Lake Pontchartrain Reevaluation Report to higher authority for review and approval on 13 July 1984. These proposed assurances were returned to the New Orleans District for modifications and were resubmitted to LMVD on 14 Jan 85 for review and approval. * The Reevaluation Report contained that local interests are to bear 30% of the first cost, a sum presently estimated at \$201,000,000 to consist of \$86,140,000 for the fair market value of all lands, easements, and rights-of-ways, including borrow and spoil disposal areas, necessary for construction of the project; and all necessary alterations and relocations to roads, pipelines, cables, wharves, drainage structures, and other facilities made necessary by the construction works, and a cash contribution presently estimated at \$114,860,000. (See para a, (4) above.)

e. Action Being Taken by Local Interests Toward Compliance. Local interests have cooperated in all efforts to date and have given assurance that all requests for additional cooperation will be expedited; however, local interests have delayed granting of rights-of-way as scheduled on certain items. They are constructing items of flood protection works at vulnerable locations as work-in-kind in lieu of cash contribution. Local interests will be given credit only for the portion meeting project requirements.

f. Status of Clearances for Relocations or Other Negotiations Affecting Construction. All negotiations for relocations are the responsibility of local interests. All negotiations with local owners are on schedule.

OPERATION: (Cont'd)

g. Repayment Contracts. Not applicable.

h. Other Current and Anticipated Difficulties, and Proposed Remedial Action. As of 1 January 1979, the State of Louisiana formed the Jefferson Levee District and assigned to it the responsibility for Jefferson Parish levees on the east bank of the Mississippi River. These levees were previously the responsibility of the Pontchartrain Levee District. Revised assurances are under review for the St. Charles Parish portion of the project (Pontchartrain Levee District) and for the Jefferson Parish portion of the project (Jefferson Levee District).

SUPPORT AND OPPOSITION:

a. Interested Senators and Representatives, and Nature and Extent of Support or Opposition.

Senator J. Bennett Johnston - support
Senator Russell B. Long - support
Representative Lindy Boggs (2d Dist) - support

LOUISIANA

Representative Robert L. Livingston, Jr. (1st Dist) - not known ^{1/}
Representative Hanson W. Moore (6th Dist) - not known
Representative Billy Tauzin (3d Dist) - not known

^{1/} Has expressed support for hurricane protection but not necessarily the barrier plan.

b. Support or Opposition by Local Interests. The Louisiana Office of Public Works, the agency designated to act in such matters in behalf of the Governor of the State of Louisiana, the Board of Levee Commissioners of the Orleans Levee District and the Board of Commissioners of the Port of New Orleans have concurred with the proposed plan of protection and are assisting in the implementation of the authorized plan. The U. S. Fish and Wildlife Service has been consulted on all aspects of the project and will continue in coordinating future features of the project.

In addition, the following Louisiana State Senators and Representatives have expressed their support or opposition:

Senator Samuel B. Nunez, Jr., District 1 - support (for Chalmette Plan)
Senator Nat G. Klefer, District 2 - support
Representative Edward C. Scogin, District 76 - opposition
Representative A. Charles Borrello, District 100 - support
Representative Joseph Accardo, Jr., District 57 - not known
Representative Theodore J. Marchand, District 102 - support

LAKE PONTCHARTRAIN, LA, AND VICINITY

1 January 1985
New Orleans District

LOCAL COOPERATION: (Cont'd)

d. Current Status of Assurances. (Cont'd)

(d) Supplemental assurances covering Public Law 91-646:

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2. Supplemental assurances were executed by Pontchartrain Levee District on 15 October 1973.
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f. Status of Clearances for Relocations or Other Negotiations Affecting Construction. All negotiations for relocations are the responsibility of local interests. All negotiations with local owners are on schedule.

These prepared assurances were returned to the New Orleans District

1 January 1985
New Orleans District

LOCAL COOPERATION: (Cont'd)

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Representative Lindy Boggs (2d Dist) - support

LOUISIANA
Representative Robert L. Livingston, Jr. (1st Dist) - not known 1/
Representative Henson W. Moore (6th Dist) - not known
Representative Billy Tauzin (3d Dist) - not known

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Representative A. Charles Borrello, District 100 - support
Representative Joseph Accardo, Jr., District 57 - not known
Representative Theodore J. Marchand, District 102 - support

LAKE PONTCHARTRAIN, LA, AND VICINITY

1 January 1985
New Orleans District

SUPPORT AND OPPOSITION: (Cont'd)

c. Attitude of Affected Property Owners. Most property owners support the plan of protection although some minor opposition to specific features of the plan has been encountered.

d. Adverse Effects. Approximately 2,100 acres of marsh and swamp wetlands and 900 acres of lake bottom will be used for construction of the hurricane protection plan. Loss of this habitat will cause a decrease in wildlife and fisheries in the Lake Pontchartrain area.

Turbid water conditions with associated siltation due to dredging, pumping, and levee construction, will occur only during construction periods. Temporary turbid water conditions during construction will decrease the amount of primary production in the disturbed area by decreasing the light available to phytoplankton and other aquatic plants.